Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S32	0	("ACsamebatterysame(heatingwarming)").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 11:32
S33	1580	AC same battery same (heating warming)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 12:33
S34	155	AC same battery same (heating warming) and (electric near4 motor)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 11:47
S35	757	219/209.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 11:48
S36	87	219/209.ccls. and AC	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 11:48
S37	80	AC same battery same (heating warming) same inverter	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 12:37
S38	11825	(heating warming) with AC	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 12:37
S39	288	(heating warming) with AC with inverter	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 12:39

S40	13	(heating warming) with AC with inverter and (electric adj motor)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 13:25
S41	9629	"429"/$.ccls. and (heating warming)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 13:25
S42	1347	"429"/$.ccls. and (heating warming) with battery	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 13:25
S43	76	"429"/$.ccls. and (heating warming) same battery same AC	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/20 13:26
S44	4	"6072301"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/21 11:17
S45	7	"6078165"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/21 11:19
S46	4	"6166549"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/21 11:19
S47	6	"5990661"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/21 11:22
S48	97	"5760488" "5808469" "5824432" "5831514"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/12/21 11:22

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SET ABB=ON   PLU=ON

     INDEX 'HCAPLUS, INSPEC, COMPENDEX, SCISEARCH, PASCAL, ELCOM, ENERGY,
     AEROSPACE, DISSABS, METADEX, ANTE, NTIS, CEABA-VTB, CONFSCI, EMA, ENTEC,
     FEDRIP, RDISCLOSURE, SIGLE, SOLIDSTATE, JICST-EPLUS' ENTERED AT 12:27:49
     ON 21 DEC 2004
                SEA AC OR A(W)C OR ALTERNATING(A)CURRENT?
               ---------
          225062    FILE HCAPLUS
           94199    FILE INSPEC
           58430    FILE COMPENDEX
           86732    FILE SCISEARCH
           38791    FILE PASCAL
            4567    FILE ELCOM
           35111    FILE ENERGY
           11166    FILE AEROSPACE
            8031    FILE DISSABS
           10389    FILE METADEX
            1680    FILE ANTE
           10900    FILE NTIS
            1989    FILE CEABA-VTB
            1671    FILE CONFSCI
            2361    FILE EMA
           10787    FILE ENTEC
            2265    FILE FEDRIP
             879    FILE RDISCLOSURE
             941    FILE SIGLE
            4935    FILE SOLIDSTATE
           32725    FILE JICST-EPLUS
L1              QUE  AC OR A(W)  C OR ALTERNATING(A)  CURRENT?
               ---------
                SEA HEAT? OR WARM? OR THERMAL? OR TEPEFACT? OR PREHEAT? OR (HIG
               ---------
         3465581    FILE HCAPLUS
          958563    FILE INSPEC
          940629    FILE COMPENDEX
          881647    FILE SCISEARCH
          776482    FILE PASCAL
           28747    FILE ELCOM
         1075550    FILE ENERGY
          357708    FILE AEROSPACE
           80562    FILE DISSABS
          348226    FILE METADEX
           25440    FILE ANTE
          270836    FILE NTIS
           98877    FILE CEABA-VTB
           36714    FILE CONFSCI
           78396    FILE EMA
          115497    FILE ENTEC
           18664    FILE FEDRIP
            7544    FILE RDISCLOSURE
           25056    FILE SIGLE
           51630    FILE SOLIDSTATE
          439625    FILE JICST-EPLUS
L2              QUE  HEAT? OR WARM? OR THERMAL? OR TEPEFACT? OR PREHEAT? OR (HIGH## OR
                HEIGHTEN? OR RAIS? OR INCREAS? OR ELEVAT?)(2A)(TEMP# OR TEMPERATUR?)
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          ---------
          SEA BATTER? OR PILE? OR CELL OR (ELECTR? OR POWER?)(2N)SOURCE?
          ---------
     2633901   FILE HCAPLUS
      296766   FILE INSPEC
      274929   FILE COMPENDEX
     2265215   FILE SCISEARCH
     1132129   FILE PASCAL
       17746   FILE ELCOM
      306863   FILE ENERGY
       81995   FILE AEROSPACE
      116056   FILE DISSABS
       32995   FILE METADEX
        7747   FILE ANTE
       97672   FILE NTIS
       48911   FILE CEABA-VTB
       95148   FILE CONFSCI
        6746   FILE EMA
       49303   FILE ENTEC
       58000   FILE FEDRIP
        2296   FILE RDISCLOSURE
       12853   FILE SIGLE
       12643   FILE SOLIDSTATE
      478121   FILE JICST-EPLUS
L3        QUE  BATTER? OR PILE? OR CELL OR (ELECTR? OR POWER?)(2N) SOURCE? OR
           ((POWER OR ENERGY?)(W) STOR?)(2A)(COMPONENT? OR DEVICE?)
          ---------
          SEA INVERTER? OR INVERTOR? OR INVERS? OR (CURRENT?(3A)(CONVERT?
          ---------
      189252   FILE HCAPLUS
      166542   FILE INSPEC
      101965   FILE COMPENDEX
      167352   FILE SCISEARCH
      176706   FILE PASCAL
        7523   FILE ELCOM
       44986   FILE ENERGY
       35524   FILE AEROSPACE
       22733   FILE DISSABS
        7741   FILE METADEX
        1587   FILE ANTE
       18546   FILE NTIS
        3114   FILE CEABA-VTB
        3810   FILE CONFSCI
        1976   FILE EMA
       11644   FILE ENTEC
        1851   FILE FEDRIP
         815   FILE RDISCLOSURE
        1814   FILE SIGLE
        4171   FILE SOLIDSTATE
       34927   FILE JICST-EPLUS
L4        QUE  INVERTER? OR INVERTOR? OR INVERS? OR
          (CURRENT?(3A)(CONVERT? OR CONVERSION? OR SWITCH?))
          ---------
          SEA INTERNAL? OR INSIDE? OR WITHIN OR WITH(W)IN
          ---------
     1565643   FILE HCAPLUS
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             712920    FILE INSPEC
             492272    FILE COMPENDEX
            1078356    FILE SCISEARCH
             600540    FILE PASCAL
              18365    FILE ELCOM
             499885    FILE ENERGY
             168529    FILE AEROSPACE
             270127    FILE DISSABS
              86577    FILE METADEX
              12905    FILE ANTE
             188903    FILE NTIS
              25163    FILE CEABA-VTB
              11434    FILE CONFSCI
              20366    FILE EMA
              38761    FILE ENTEC
              39025    FILE FEDRIP
               9690    FILE RDISCLOSURE
              15603    FILE SIGLE
              16295    FILE SOLIDSTATE
             212285    FILE JICST-EPLUS
L5                  QUE  INTERNAL? OR INSIDE? OR WITHIN OR WITH(W)IN
                   ---------
                    SEA L2(3N)L5 AND L3 AND L2 AND L4
                   ---------
                  19   FILE HCAPLUS
                  17   FILE INSPEC
                  10   FILE COMPENDEX
                  14   FILE SCISEARCH
                   6   FILE PASCAL
                  22   FILE ENERGY
                   3   FILE AEROSPACE
                   4   FILE DISSABS
                   3   FILE METADEX
                   4   FILE NTIS
                   1   FILE CEABA-VTB
                   5   FILE ENTEC
                   1   FILE FEDRIP
                   1   FILE RDISCLOSURE
                   2   FILE SOLIDSTATE
                   4   FILE JICST-EPLUS
L6                  QUE  L2(3N) L5 AND L3 AND L2 AND L4
                   ---------
                    SEA L1 AND (L2(3N)L5) AND L3 AND L4
                   ---------
                   1   FILE HCAPLUS
                   4   FILE INSPEC
                   1   FILE COMPENDEX
                   2   FILE SCISEARCH
                   1   FILE PASCAL
                   2   FILE ENERGY
                   1   FILE DISSABS
                   1   FILE METADEX
                   1   FILE ENTEC
                   1   FILE RDISCLOSURE
                   2   FILE JICST-EPLUS
L7                  QUE  L1 AND (L2(3N) L5) AND L3 AND L4
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    FILE 'INSPEC, SCISEARCH, ENERGY, JICST-EPLUS, HCAPLUS, COMPENDEX, PASCAL,
    DISSABS, METADEX, ENTEC, RDISCLOSURE' ENTERED AT 13:22:30 ON 21 DEC 2004
L8            17 S  L7
L9            88 S  L6 NOT L7
L10            8 S  L8 NOT P/DT NOT PY>1998
L11            1 S  L8 AND P/DT
L12            5 DUP REM L10 (3 DUPLICATES REMOVED)
                    ANSWERS '1-2' FROM FILE INSPEC
                    ANSWER '3' FROM FILE ENERGY
                    ANSWERS '4-5' FROM FILE JICST-EPLUS
               D 1-5 ALL
               D L11 ALL
L13       495908 S  BATTER? OR (ELECTR? OR POWER?)(2N) SOURCE?
               OR ((POWER OR ENERGY?)(W) STOR?)(2A)(COMPONENT? OR DEVICE?)
L14           28 S  L9 AND L13
L15           12 S  L14 NOT P/DT NOT PY>1998
L16            4 S  L14 AND P/DT
L17            4 DUP REM L16 (0 DUPLICATES REMOVED)
                    ANSWER '1' FROM FILE ENERGY
                    ANSWERS '2-4' FROM FILE HCAPLUS
               D 1 ALL
               D 2-4 MAX
L18           10 DUP REM L15 (2 DUPLICATES REMOVED)
                    ANSWERS '1-2' FROM FILE INSPEC
                    ANSWER '3' FROM FILE SCISEARCH
                    ANSWERS '4-6' FROM FILE ENERGY
                    ANSWER '7' FROM FILE JICST-EPLUS
                    ANSWERS '8-9' FROM FILE COMPENDEX
                    ANSWER '10' FROM FILE DISSABS
               D 1-10 ALL

    INDEX 'WPIX, JAPIO, JICST-EPLUS, PATOSEP, PATOSWO, PATDPAFULL,
    EUROPATFULL, PCTFULL, FRFULL' ENTERED AT 14:20:03 ON 21 DEC 2004
               SEA L1(10N)(L2(3N)L5)(10N)L3(10N)L4
              ---------
             33   FILE EUROPATFULL
            213   FILE PCTFULL
L19            QUE  L1(10N)(L2(3N) L5)(10N) L3(10N) L4
              ---------

    FILE 'PCTFULL, EUROPATFULL' ENTERED AT 14:36:43 ON 21 DEC 2004
L20          803 S  L19
L21          308 S  (S FEEDBACK? OR FEED(W) BACK OR LOOP)(2A)L13
L22            4 S  L1(5N)(L2(2N) L5)(5N) L3(5N) L4 AND L21
L23            4 DUP REM L22 (0 DUPLICATES REMOVED)
                    ANSWERS '1-2' FROM FILE PCTFULL
                    ANSWERS '3-4' FROM FILE EUROPATFULL
               D 1-4 BIB AB KWIC
               D 1-4 HIT
```

L12 ANSWER 1 OF 5 INSPEC (C) 2004 IEE on STN DUPLICATE 1
AN 1997:5628752 INSPEC DN B9708-8250-008; C9708-3340H-080 Full-text
TI A photovoltaic solar water heating system.
AU Fanney, A.H.; Dougherty, B.P. (Building Environ. Div., Nat. Inst. of Stand. & Technol., Gaithersburg, MD, USA)
SO Transactions of the ASME. Journal of Solar Energy Engineering (May 1997) vol.119, no.2, p.126-33. 14 refs.
Published by: ASME
Price: CCCC 0199-6231/97/$3.00
CODEN: JSEEDO ISSN: 0199-6231
SICI: 0199-6231(199705)119:2L.126:PSWH;1-1
DT Journal
TC New Development; Practical
CY United States
LA English
AB A novel solar water heating system was patented in 1994. This system uses photovoltaic **cells** to generate electrical energy that is subsequently dissipated in multiple electric resistive heating elements. A microprocessor controller continually selects the appropriate heating elements such that the resistive load causes the photovoltaic array to operate at or near maximum power. Unlike other residential photovoltaic power systems, the photovoltaic solar water heating system does not require an **inverter** to **convert** the direct **current** supplied by the photovoltaic array to an **alternating current** or a **battery** system for storage. It uses the direct current supplied by the photovoltaic array and the inherent storage capabilities of a residential water heater. A photovoltaic solar hot water system eliminates the components most often associated with the failures of solar thermal hot water systems. Although currently more expensive than a solar thermal hot water system, the continued decline of photovoltaic **cell** prices is likely to make this system competitive with solar **thermal** hot water systems **within** the next decade. This paper describes the system, discusses the advantages and disadvantages relative to solar thermal water heating systems, reviews the various control strategies which have been considered and presents experimental results for two full-scale prototype systems.
CC B8250 Solar power stations and photovoltaic power systems; B8540 Electric heating; B8420 Solar cells and arrays; B8110B Power system management, operation and economics; C3340H Control of electric power systems; C3340B Control of heat systems; C7410B Power engineering computing; C7420 Control engineering computing
CT ELECTRIC HEATING; HEATING ELEMENTS; MICROCOMPUTER APPLICATIONS; PHOTOVOLTAIC POWER SYSTEMS; POWER SYSTEM CONTROL; SOLAR **CELL** ARRAYS
ST photovoltaic solar water heating system; **photovoltaic cells**; microprocessor controller; multiple electric resistive heating elements; photovoltaic array; direct current; residential water heater; advantages; disadvantages; control strategies; performance tests

L12 ANSWER 2 OF 5 INSPEC (C) 2004 IEE on STN
AN 1996:5334499 INSPEC DN B9609-8360-026 Full-text
TI A new approach to the UPS concept.
AU Hoonsbeen, G.A.
SO Official Proceedings of the Eighth International Power Quality Solutions '95. Presented at Powersystems World '95 Conference and Exhibit
Ventura, CA, USA: Intertec Int, 1995. p.15-20 of vii+383 pp. 0 refs.
Conference: Long Beach, CA, USA, 9-15 Sept 1995
ISBN: 0-931033-58-6
DT Conference Article

TC Practical
CY United States
LA English
AB Low cost uninterruptible power supplies have found many applications for safeguarding the functions of critical equipment during short term energy interruptions. However, there is growing interest in systems that provide longer run times. Conventional wisdom would be to use additional UPS **batteries** to extend run times. This choice is expensive and generally **batteries** need to be replaced every three to five years. In addition, traditional DC to **AC inverters,** embedded in most UPS systems, may perform well for five to ten minutes, but are not capable of extended run times at rated loads. **Inverters** which carry continuous loads of 1000 or more watts, for several hours, require larger components and a means for dealing with the accumulation of significant **heat within** the system's package. Here, the author describes how, in order to provide an integrated long run time uninterruptible energy system (UES), it is necessary to combine conventional techniques as well as introduce new ideas to meet some specific design goals for both existing and future market requirements.
CC B8360 Power convertors and power supplies to apparatus; B1210 Power electronics, supply and supervisory circuits; B8410E Secondary cells
CT DC-**AC** POWER CONVERTORS; DESIGN ENGINEERING; **INVERTORS;** MARKETING; SECONDARY **CELLS;** UNINTERRUPTIBLE POWER SUPPLIES
ST UPS; uninterruptible power supplies; short term energy interruptions; run times; **secondary batteries; inverters;** continuous loads; design goals; market requirements

L12 ANSWER 3 OF 5 ENERGY COPYRIGHT 2004 USDOE/IEA-ETDE on STN
AN 1997(6):33342 ENERGY Full-text
TI A photovoltaic solar water heating system.
AU Fanney, A.H.; Dougherty, B.P. (National Inst. of Standards and Technology, Gaithersburg, MD (United States))
CS Funding Organisation: National Inst. of Standards and Technology, Gaithersburg, MD (United States) (9525237)
NR CONF-9603117--
SO Solar engineering 1996.
Editor(s): Davidson, J.H. (Univ. of Minnesota, Minneapolis, MN (United States)); Chavez, J. (Sandia National Labs., Albuquerque, NM (United States))
New York, NY: American Society of Mechanical Engineers. 1996. p. 9-18 of 544 p. American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, NY 10017 (United States) $65.00.
Conference: 1996 American Society of Mechanical Engineers international solar energy conference, San Antonio, TX (United States), 31 Mar - 3 Apr 1996
ISBN: 0-7918-1765-2
DT Book Article; Conference; Numerical Data
CY United States
LA English
FA AB
AB A novel solar water heating system was patented in 1994. This system uses photovoltaic cells to generate electrical energy that is subsequently dissipated in multiple electric resistive heating elements. A microprocessor controller continually selects the appropriate heating elements such that the resistive load causes the photovoltaic array to operate at or near maximum power. Unlike other residential photovoltaic systems, the photovoltaic solar water heating system does not require an inverter to convert the direct current supplied by the photovoltaic array to an alternating current or a battery system for

storage. It uses the direct current supplied by the photovoltaic array and the inherent storage capabilities of a residential water heater. A photovoltaic solar hot water system eliminates the components most often associated with the failures of solar thermal hot water systems. Although currently more expensive than a solar thermal hot water system, the continued decline of photovoltaic cell prices is likely to make this system competitive with solar thermal hot water systems within the next decade. This paper describes the system, discusses the advantages and disadvantages relative to solar thermal water heating systems, reviews the various control strategies which have been considered, and presents experimental results for two full-scale prototype systems

CC *140907; 140501

CT COMPUTERIZED CONTROL SYSTEMS; COST; DESIGN; DIRECT CURRENT; ELECTRIC CURRENTS; EXPERIMENTAL DATA; FIELD TESTS; PERFORMANCE; PHOTOVOLTAIC CELLS; RESISTANCE HEATING; SOLAR WATER HEATERS; SPECIFICATIONS *SOLAR WATER HEATERS; *PHOTOVOLTAIC CELLS

BT APPLIANCES; CONTROL SYSTEMS; CURRENTS; DATA; DIRECT ENERGY CONVERTERS; ELECTRIC CURRENTS; ELECTRIC HEATING; EQUIPMENT; HEATERS; HEATING; INFORMATION; NUMERICAL DATA; ON-LINE CONTROL SYSTEMS; ON-LINE SYSTEMS; PHOTOELECTRIC CELLS; SOLAR EQUIPMENT; TESTING; WATER HEATERS

L12 ANSWER 4 OF 5 JICST-EPlus COPYRIGHT 2004 JST on STN

AN 970147743 JICST-EPlus Full-text

TI Small Size **AC** Adapter.

AU HARA SHIN'ICHI; IGARI HITOSHI

CS Sanken Electr. Co., Ltd.

SO Sanken Giho (Sanken Technical Report), (1996) vol. 28, no. 1, pp. 42-48. Journal Code: S0481A (Fig. 15, Tbl. 2, Ref. 1) CODEN: STEQDU; ISSN: 0285-9815

CY Japan

DT Journal; Commentary

LA Japanese

STA New

AB The **AC** adapter which is used for the note book type PC etc., is generally required to be not only compact in size, but also fit for worldwide input voltages for use both in Japan and overseas countries. In order to design the small size **AC** adapter, the efficiency must be improved to limit **heat** caused by **internal** loss. However, it has become difficult to improve the conversion efficiency for worldwide input voltages in the conventional flyback converter system using PWM system. This paper presents the **AC** adapter the size of which is reduced to around 150cc and is applicable for the worldwide input voltages by realizing the high efficiency with the use of the **current** resonant type **converter** for the main converter curcuit, complying with the requirement of safety regulations of each country and also EMI regulations. Two types of such an adapter (35W and 40W) have been developed as reported in this paper. (author abst.)

CC NC05060Q (621.311.6)

CT miniaturization; DC **power source**; **AC**-DC conversion; adapter; circuit design; efficiency; noise characteristic; switching regulator; DC-DC conversion; power converter

BT modification; **electric power source** equipment; equipment; electric conversion; transformation and conversion; design; characteristic; stabilized **power source**; electric converter; converter

L12 ANSWER 5 OF 5 JICST-EPlus COPYRIGHT 2004 JST on STN

AN 940983754 JICST-EPlus Full-text

TI Special issue : Solar houses.Outline of solar houses authorized as good energy saving building technique.Minami Fuji Industry Co., Ltd.EM house.
AU ITO HIROKAZU
CS Minamifujisangyo
SO IBEC (Inst Build Energy Conserv), (1994) vol. 15, no. 4, pp. 64-65.
Journal Code: G0755B (Fig. 6)
ISSN: 0389-2638
CY Japan
DT Journal; Commentary
LA Japanese
STA New
AB An octagonal house characterized by a hipped roof incorporated with photovoltaic power generation system is introduced.Electricity generated from solar **cells** mounted on 3 faces of the octagonal roof is **converted** to **alternating current** by an enverter to operate a heat pump type heating and cooling system with hot-water supply device.Attic space and spaces under the floors are communicated with a vent layer in the external wall and the indoor center duct so that **heat** transfer between the **inside** and outside of the house is reduced by air circulation in winter and incoming outer air from the ventilating openings under the floor and exhaust from the top of the hipped roof.
CC RB050100 (721)
CT solar house; solar system(engineering); solar photovoltaic generation; energy saving; hot water supplying apparatus; ventilation; ventilation(air conditioning)
BT dwelling house; system; power generation; electric power energy operation; saving; water supply service; building equipment; facility

L11 ANSWER 1 OF 1 RDISCLOSURE COPYRIGHT 2004 KENNETH MASON PUBL. on STN
AN 134062 RDISCLOSURE Full-text
TI Self regulating heaters
PA British Gas Corporation, Patent Department, 326 High Holborn, London, WC1V 7PT
PI RD 134062
PRAI RD1975-134062 19750520
SO Research Disclosure, 1975 06, 134
CODEN: RSDSBB; ISSN: 0374-4353
DT **Patent**

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L17   ANSWER 1 OF 4  ENERGY  COPYRIGHT 2004 USDOE/IEA-ETDE on STN
AN    1983(18):160418  ENERGY Full-text
TI    Device for suppressing the ignition spark noise in a spark ignition
      system for a heat engine, particularly an internal combustion engine, and
      noise suppressing capacitor for such a system.
AU    Kasuya, H.; Sone, M.; Endo, H.; Imai, I. [Japan]
CS    Assignee(s): Nissan Motor Co. Ltd., Yokohama (Japan)
PI    DE 3221886 A  10 Jun 1981
      16 p. Availability: Deutsches Patentamt, Muenchen, Germany, F.R. JP
      PAT-APPL-P56-88006.
DT    Patent
CY    Germany,Federal Republic of
LA    German
AB     The suppression of high frequency interference radiated from an ignition system
       can be done by preventing that the current producing the noise is taken as
       leakage current to an ignition switch, and that the earthing of the current
       producing the noise is guaranteed. The length of a current by-pass circuit with
       a noise suppression capacitor is therefore reduced, so that there is a low
       impedance in comparison with the impedance of the wiring, which connects the
       ignition coil with the ignition switch and the vehicle battery. The capacitor is
       connected in a current circuit, which connects the ignition coil and the
       ignition switch, so that the current producing the noise always flows through
       this part and therefore guarantees its earthing.
IC    F02P003-02
CC    *330100
CT    *IGNITION SYSTEMS: *NOISE POLLUTION ABATEMENT; *IGNITION SYSTEMS: *RADIO
      NOISE; CAPACITORS; ELECTRIC COILS; IGNITION; INTERNAL COMBUSTION ENGINES;
      SHORT WAVE RADIATION
BT    ELECTRICAL EQUIPMENT; ELECTROMAGNETIC RADIATION; ENGINES; EQUIPMENT; HEAT
      ENGINES; NOISE; POLLUTION ABATEMENT; RADIATIONS; RADIOWAVE RADIATION


L17   ANSWER 2 OF 4  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN    2004:466897  HCAPLUS Full-text
DN    141:25422
ED    Entered STN:  10 Jun 2004
TI    Heat-radiating apparatus
IN    Matsubara, Koji; Yanatori, Michio; Yokomura, Shunichi
PA    Niigata Tlo Corporation, Japan; Kitamura Seisakusho K. K.
SO    Jpn. Kokai Tokkyo Koho, 8 pp.
      CODEN: JKXXAF
DT    Patent
LA    Japanese
IC    ICM  F25D009-00
      ICS  F28D015-02; F28D015-06; H05K007-20
CC    47-4 (Apparatus and Plant Equipment)
      Section cross-reference(s): 76
FAN.CNT 1
      PATENT NO.          KIND    DATE        APPLICATION NO.        DATE
      ---------------     ----    --------    --------------------   --------
PI    JP 2004163033        A2     20040610    JP 2002-330841         20021114
                                              JP 2002-330841         20021114
CLASS
 PATENT NO.      CLASS  PATENT FAMILY CLASSIFICATION CODES
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 JP 2004163033   ICM    F25D009-00
                 ICS    F28D015-02; F28D015-06; H05K007-20
 JP 2004163033   FTERM  3L044/AA01; 3L044/AA03; 3L044/BA06; 3L044/CA13;
                        3L044/DB02; 3L044/FA10; 3L044/HA01; 3L044/HA04;
                        3L044/JA01; 3L044/KA04; 3L044/KA05; 3L044/KA06;
                        5E322/BB06; 5E322/CA06; 5E322/DB01; 5E322/DB06;
                        5E322/EA02; 5E322/EA04; 5E322/FA01
```

AB The title apparatus includes a casing, a **heat** source arranged in the casing, and a **heat** flow controllable **heat** transfer device formed from an evaporator, a condenser, a vapor migrating pipe and a liquid returning pipe connected between the evaporator and the condenser to form a circulation path, an **inverse** U-shaped riser pipe served as a part of the liquid returning pipe at the outside of a casing, an evaporable liquid (i.e., working fluid) sealed in the circulation path and a **heater** arranged at the root section of the riser pipe, the evaporator of the **heat** flow controllable **heat** transfer device is mounted in the casing, e.g., arranged on the inner wall of the casing, in the inner atmospheric of the casing or in the vicinity of the **heat** source, and the condenser is mounted at the outside of the casing, e.g., arranged on a sunshade plate or in the gap section between the sunshade plate and the outer wall of the casing. The apparatus can be used for radiating **heat** from **inside** of an outdoor casing having **power source** and computing device installed therein.

ST **heat** radiating app cooling **inside** outdoor casing

IT Containers
(casing; **heat**-radiating apparatus with **heat** flow controllable **heat** transfer device for cooling inside of outdoor casing)

IT Computers
(cooling of; **heat**-radiating apparatus with **heat** flow controllable **heat** transfer device for cooling inside of outdoor casing)

IT Condensers
Evaporators
Heat transfer
Radiators
Refrigerants
(**heat**-radiating apparatus with **heat** flow controllable **heat** transfer device for cooling inside of outdoor casing)

IT **Heat** pipes
(loop; **heat**-radiating apparatus with **heat** flow controllable **heat** transfer device for cooling inside of outdoor casing)

IT Cooling
(of **inside** of casing; **heat**-radiating apparatus with **heat** flow controllable **heat** transfer device for cooling inside of outdoor casing)

IT **Electric** energy
(**source**, cooling of; **heat**-radiating apparatus with **heat** flow controllable **heat** transfer device for cooling inside of outdoor casing)

IT Plates
(sunshade; **heat**-radiating apparatus with **heat** flow controllable **heat** transfer device for cooling inside of outdoor casing)

IT Pipes and Tubes
(vapor migrating and liquid returning; **heat**-radiating apparatus with

heat flow controllable **heat** transfer device for
cooling inside of outdoor casing)

L17 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:564763 HCAPLUS Full-text
ED Entered STN: 03 Aug 2001
TI Solar photoelectric generation device. [Machine Translation].
IN Matsukawa, Mitsuru; Shimomura, Yukio; Sakae, Norio
PA Nissin Electric Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
IC ICM H02J007-35
ICS H01L031-04; H02J003-38
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001211565	A2	20010803	JP 2000-14528	20000124
				JP 2000-14528	20000124

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001211565	ICM	H02J007-35
	ICS	H01L031-04; H02J003-38

AB [Machine Translation of Descriptors]. Utilizing the direct current output of the solar array effectively without using systematic **power source**, try to be able to **heat** the circuit **inside** the board economically. When being below start temperature of **heating** where inspection temperature is set inside electrical transformation board 4, outputs the on directive, when rising in the **heating** stop temperature whose inspection **temperature** is **higher** than **heating** start temperature, closing dispatch control **switch** direct **current** output of 19 of the normal opening which is formed and solar array 3 through switch 19, with the temperature sensor 21 which stops the output of the on directive and on order provides with the **heater** 20 which the electric supply is done.

L17 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:735823 HCAPLUS Full-text
DN 128:26720
ED Entered STN: 22 Nov 1997
TI Plasma oscillator water **heater**/steam boiler
IN Lopresti, Daniel R.
PA USA
SO U.S., 11 pp.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM B23K010-00
NCL 219121590
CC 61-7 (Water)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5685997	A	19971111	US 1994-337767	19941114
				US 1994-337767	19941114

```
CLASS
 PATENT NO.        CLASS  PATENT FAMILY CLASSIFICATION CODES
 --------------    -----  ----------------------------------------------
 US 5685997        ICM    B23K010-00
                   NCL    219121590
AB    A plasma oscillator photonic energy water heater/steam boiler, establishes,
      amplifies and stores photonic energy in a plasma wherein resonance and temporary
      energy storage is maintained until energy is transferred on demand by thermal
      radiation and conduction of mol. kinetic energy to a heat exchanger having water
      to be heated therein.  The chamber is a closed hollow internally reflective
      mirrored cylinder which includes parallel and optically resonant mirrored
      surfaces for sustaining a plasma oscillation within the container.  A
      containerized mol. gas media is flooded with broad band electromagnetic radiation
      to create population inversions at the electron level in the gaseous atmospheric,
      and hence, store photonic energy in the plasma oscillator.  Water in a heat
      exchanger immersed within the plasma is heated by thermal radiation energy
      transfer, and by conduction from a high mol. kinetic energy stored within the
      plasma.
ST    plasma oscillator water heater steam boiler; energy
      storage device water heater
IT    Energy storage
         (plasma oscillator device; plasma oscillator water
         heater/steam boiler)
IT    Heat exchangers
        Heaters
      Waters
         (plasma oscillator water heater/steam boiler)
IT    Boilers
         (stream; plasma oscillator water heater/steam boiler)


DUPLICATE IS NOT AVAILABLE IN 'RDISCLOSURE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L15
L18            10 DUP REM L15 (2 DUPLICATES REMOVED)
                  ANSWERS '1-2' FROM FILE INSPEC
                  ANSWER '3' FROM FILE SCISEARCH
                  ANSWERS '4-6' FROM FILE ENERGY
                  ANSWER '7' FROM FILE JICST-EPLUS
                  ANSWERS '8-9' FROM FILE COMPENDEX
                  ANSWER '10' FROM FILE DISSABS

=> d 1-10 all

L18   ANSWER 1 OF 10  INSPEC  (C) 2004 IEE on STN      DUPLICATE 2
AN    1984:2192677  INSPEC     DN  B84012701 Full-text
TI    Fast NiCd charger.
AU    Lambley, R.
SO    Electronics & Wireless World (Nov. 1983) vol.89, no.1574, p.26-9. 0 refs.
      CODEN: EWWOEG  ISSN: 0266-3244
DT    Journal
TC    Application; Practical
CY    United Kingdom
LA    English
```

AB The charger described is capable of charging all common **cell** types in an hour, and has a single switch to accommodate **batteries** of different sizes. A complete circuit of the charger is shown. To keep **heat** dissipation **within** manageable limits, a **switch**-mode **current** source is used to supply the charging current. The unit requires a power supply capable of delivering 5 A DC continuously at up to 30 V. The mains unit incorporates a toroidal transformer with two 18 V 3.3 A secondary windings. A suppression filter should be used at the mains input.
CC B8360 Power convertors and power supplies to apparatus
CT **BATTERY** CHARGERS; CADMIUM; NICKEL
ST mains power supply; NiCd charger; **batteries; switch-mode current source;** toroidal transformer; suppression filter
ET Cd*Ni; Cd sy 2; sy 2; Ni sy 2; NiCd; Ni cp; cp; Cd cp

L18 ANSWER 2 OF 10 INSPEC (C) 2004 IEE on STN
AN 1983:2079876 INSPEC DN B83040395 Full-text
TI A CMOS SLIC with an automatic balancing hybrid.
AU Shirasu, H.; Shibukawa, M.; Amada, E.; Hasegawa, Y. (Hitachi Central Res. Lab., Tokyo, Japan); Fujii, F.; Yasunari, K.
SO 1983 IEEE International Solid-State Circuits Conference. Digest of Technical Papers
Editor(s): Winner, L.
New York, NY, USA: IEEE, 1983. p.18-19 of 339 pp. 3 refs.
Conference: New York, NY, USA, 23-25 Feb 1983
Price: CCCC 0193-6530/83/0000-0018$01.00
DT Conference Article
TC Application; New Development; Practical
CY United States
LA English
AB Many costly functions needed in the line circuits of digital switching systems can be neatly implemented with **current** CMOS **switched** capacitor technology. Meanwhile, foreign voltages, especially those due to power-line crossing and **heat**-dissipation problems **within** the **battery** feed circuit, still seem to prevent complete monolithic realization of an SLIC for full compliance of requirements. The authors present a design centered on the integration of as many functions as possible on a 5- mu CMOS device, and adapting the line circuit to severe environments and its floating characteristics, even though some external components may be needed. Another important reason for the use of low-voltage CMOS technology was the future possibility of integrating those functions into a CMOS CODEC. The hybrid circuit has an automatic balancing facility to improve return loss against varying subscriber line impedances.
CC B2570D CMOS integrated circuits; B6230 Switching centres and equipment
CT FIELD EFFECT INTEGRATED CIRCUITS; SWITCHED CAPACITOR NETWORKS; TELEPHONE EQUIPMENT; TELEPHONE EXCHANGES
ST line circuits; digital switching systems; CMOS switched capacitor technology; severe environments; floating characteristics; low-voltage CMOS technology; automatic balancing facility; return loss; subscriber line impedances

L18 ANSWER 3 OF 10 SCISEARCH COPYRIGHT (c) 2004 The Thomson Corporation. on STN DUPLICATE 1
AN 92:26980 SCISEARCH Full-text
GA The Genuine Article (R) Number: GX670
TI MATHEMATICAL SIMULATION OF THE **THERMAL** REGIMES OF LITHIUM **BATTERIES** AT HIGH DISCHARGE RATES
AU MININ V I (Reprint); PANICHKIN V I
SO SOVIET ELECTROCHEMISTRY, (APR 1991) Vol. 27, No. 4, pp. 456-462.

ISSN: 0038-5387.
DT Article; Journal
FS PHYS
LA ENGLISH
REC Reference Count: 13
AB The one-dimensional version of a phenomenological model of lithium **battery** discharge was formulated. The temperature dependence of specific resistance of the electrolyte in the porous cathode which is contained in the model was found by solving the **inverse** problem using the data from experiments involving individual **cells** or **batteries**. With the information obtained from individual **cells**, the direct problem can be solved, i.e., the **cell** 's discharge curve and **internal thermal** regime can be found numerically. Via experiments involving **batteries**, the analogous problem can be solved for the **batteries**.
CC ELECTROCHEMISTRY
STP KeyWords Plus (R): MODEL
RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	ARN PG (RPG)	Referenced Work (RWK)
ALIFANOV O M	1988			INVERSE HEAT EXCHANG
BAGOTSKII V S	1988			FUNDAMENTALS ELECTRO
BLEKMAN I I	1983		328	MECHANICS APPLIED MA
CHO Y I	1987	21	183	J POWER SOURCES
CHUYAN R K	1988			METHODS MATH SIMULAT
EVANS T I	1989	136	328	J ELECTROCHEM SOC
EVANS T I	1989	136	2145	J ELECTROCHEM SOC
FRANKKAMENETSKI.DA	1969			DIFFUSION HEAT TRANS
KUTEPOV A M	1986			HYDRODYNAMICS HEAT E
MOZALEVSKAYA V P	1988	22	1	ELEKTROTEKH PROMST S
PASKONOV V M	1984			NUMERICAL SIMULATION
POLYAEV V M	1988			HYDRODYNAMICS HEAT E
SZPAK S	1987	32	239	ELECTROCHIM ACTA

L18 ANSWER 4 OF 10 ENERGY COPYRIGHT 2004 USDOE/IEA-ETDE on STN
AN 1993(21):133725 ENERGY Full-text
TI Inhomogeneous temperature problems inside a Li/SOCl2 cell - Homogenization by integrated heat pipes.
AU Lefriec, C.; Suleiman, A.; Alexandre, A.
NR CONF-920738--; SAE-Paper--921165
SO Warrendale, PA: Society of Automotive Engineers. 1992. 7 p. Society of Automotive Engineers (SAE), 400 Commonwealth Dr., Warrendale, PA 15096-0001.
Conference: 22. international conference on environmental systems, Seattle, WA (United States), 13-16 Jul 1992
DT Miscellaneous; Conference; Availability Note
CY United States
LA English
FA AB
AB The effect of the temperature gradient on the electrical capacity of the lithium/thionyl chloride (Li/SOCl2) cells and the dependence of internal heat generation on the temperature level were investigated by studying the thermal behavior of a cell constituted by a number of couples stacken in a stainless steel cylinder during a discharge profile. It is shown that the temperature gradient between couples affected the depth of discharge, indicating that this gradient must be limited to prevent discrepancy in couple's voltage and inversion phenomenon. It was found that a cooling concept based on integrated

heat pipes is effective in reducing the temperature gradient and in yielding homogeneous cell behavior in overdischarge. 6 refs.
CC *250902
CT CAPACITY; CHLORIDES; HEAT GAIN; HEAT PIPES; LITHIUM-SULFUR BATTERIES; TEMPERATURE DEPENDENCE; TEMPERATURE GRADIENTS
*LITHIUM-SULFUR BATTERIES: *TEMPERATURE DEPENDENCE
BT CHLORINE COMPOUNDS; ELECTRIC BATTERIES; ELECTROCHEMICAL CELLS; HALIDES; HALOGEN COMPOUNDS; METAL-NONMETAL BATTERIES
ET Li; Cl*O*S; SOCl; S cp; cp; O cp; Cl cp

L18 ANSWER 5 OF 10 ENERGY COPYRIGHT 2004 USDOE/IEA-ETDE on STN
AN 1988(12):92946 ENERGY
TI Fine particles measurement techniques. Application to some atmospheric phenomena.
Techniques de mesure de l'aerosol fin. Applications a divers phenomenes atmospheriques.
AU Metayer, Y. [France]
CS CEA Centre d'Etudes Nucleaires de Fontenay-aux-Roses, 92 (France). Dept. de Protection Technique; Paris-12 Univ., 94 - Creteil (France) (9100947; 9100349)
NR CEA-R--5417; DE88753477
Oct 1987. 245 p. Availability: NTIS (US Sales Only), PC A11/MF A01.
DT Report
CY France
LA French
DN ERA-13:031022
AB A continous flow condensation nuclei counter (CNC) was first studied, this device being used for counting submicronic aerosol particles. A model describing heat and mass transfers inside a cooled pipe and the simultaneous condensational growth was developed; a comparison with experimental results showed excellent agreement. This model accounts for the defaults already observed with this type of apparatus. A new method for measuring the size distribution of aerosols with diameter ranging from 0.008 to 0.3 micron m is described. This technique is based upon particles bipolar charging, by contact with ions emitted from a beta source, and a subsequent differential electrical mobility analysis. The selected particles are detected by means of the CNC. A numerical inversion procedure is needed to recover the original aerosol size distribution. This method was compared with those currently in use: Electrical Mobility Analyser and Diffusion Battery.
CC *500200
CT *AEROSOLS: *PARTICLE SIZE; AIR POLLUTION; CONDENSATION NUCLEI; ELECTRIC MEASURING INSTRUMENTS; MEASURING METHODS; PHOTOLYSIS; RADIOLYSIS; RADON 222; STRATOSPHERE; VOLCANOES
BT ALPHA DECAY RADIOISOTOPES; CHEMICAL RADIATION EFFECTS; CHEMICAL REACTIONS; CHEMISTRY; COLLOIDS; DAYS LIVING RADIOISOTOPES; DECOMPOSITION; DISPERSIONS; EARTH ATMOSPHERE; ELECTRICAL EQUIPMENT; EQUIPMENT; EVEN-EVEN NUCLEI; HEAVY NUCLEI; ISOTOPES; MEASURING INSTRUMENTS; NUCLEI; PHOTOCHEMICAL REACTIONS; POLLUTION; RADIATION CHEMISTRY; RADIATION EFFECTS; RADIOISOTOPES; RADON ISOTOPES; SIZE; SOLS

L18 ANSWER 6 OF 10 ENERGY COPYRIGHT 2004 USDOE/IEA-ETDE on STN
AN 1986(15):120417 ENERGY Full-text
TI Direct optical pumping of high-pressure CO2 and N2O lasers with a pulsed HF laser.
AU Stenersen, K.; Wang, G. (Norwegian Defence Research Establishment, P.O. Box 25, N-2007 Kjeller) [Norway]

NR CONF-850558--
SO Digest of technical papers from the OSA/IEEE 1985 conference on lasers and electro-optics.
Washington, DC: Optical Society of America. 1985. pp. 294
Conference: Conference on lasers and electro-optics, Baltimore, MD, USA, 21 May 1985
DT Book Article; Conference
CY United States
LA English
AB A pulsed line-tunable HF laser has been used for direct optical pumping of sealed-off CO2 and N2O lasers at gas pressures required for continuous tuning of the laser frequency between the line centers in these gases. This pumping scheme represents a significant simplification compared with a scheme previously studied by us. In that work a DF laser was used for pumping, and DF was added as an absorber/transfer gas to a high-pressure CO2-He gas mixture. The HF laser is a very powerful pump source which appears more attractive for practical applications than the pump sources (HBr lasers and frequency-doubled CO2 lasers) used in previously reported optical pumping schemes for high-pressure molecular lasers. In this work CO2 and N2O are excited directly by HF laser radiation in the 2.7-2.9-mum range to the (101 021)I,II and (101) vibrational levels, respectively. Population inversion is obtained via rapid decay of the lower laser levels. For the gas mixtures used in the experiments, 1-atm CO2-9-atm He and 1-atm N2O-4-atm He, an internal thermal equilibrium between the nu1 and nu2 vibrational modes is established on a 1-nsec time scale followed by a vibrational -> translational/rotational energy transfer on a 50-nsec time scale. For comparison, the decay time of the upper laser level is in the 1-2-musec range. Pump radiation absorption lengths are a few centimeters.
CC *420300
CT *CARBON DIOXIDE LASERS: *OPTICAL PUMPING; *GAS LASERS: *OPTICAL PUMPING; CHEMICAL REACTION KINETICS; GAIN; NITROUS OXIDE; OPTICAL MODES; POPULATION INVERSION; POWER LOSSES; PULSE RISE TIME; QUANTUM EFFICIENCY; VIBRATIONAL STATES
BT AMPLIFICATION; CHALCOGENIDES; EFFICIENCY; ENERGY LEVELS; ENERGY LOSSES; EXCITED STATES; GAS LASERS; KINETICS; LASERS; LOSSES; NITROGEN COMPOUNDS; NITROGEN OXIDES; OSCILLATION MODES; OXIDES; OXYGEN COMPOUNDS; PUMPING; REACTION KINETICS; TIMING PROPERTIES
ET C*O; CO2; C cp; cp; O cp; N*O; N2O; N cp; F*H; HF; H cp; F cp; In; D*F; DF; D cp; C*He*O; CO2-He; Br*H; HBr; Br cp; He

L18 ANSWER 7 OF 10 JICST-EPlus COPYRIGHT 2004 JST on STN
AN 950566947 JICST-EPlus Full-text
TI Main Research Activities at the Institute of Energy Process Engineering Research Centre Juelich Germany.
AU ACHENBACH E
CS Japan Atomic Energy Res. Inst., Ibaraki-ken
SO Nippon Genshiryoku Kenkyujo JAERI,Review, (1995) pp. 100P. Journal Code: L2149A (Fig. 63, Ref. 14)
Report No.: JAERI-REVIEW-95-8
CY Japan
DT Report; Commentary
LA English
STA New
AB This report summarizes four lectures been held during the author's seven-week stay at the Department of **High Temperature** Engineering in the period from February 2nd to March 23rd in 1995 under the JAERI foreigh researcher inviting program. Though the Institute of Energy Process Engineering(IEV) in the Research

Centre Juelich(KFA), has recently changed the subject of research from nuclear technology of **high-temperature** gas-cooled reactors(HTGRs) to fuel **cell** technology, there are many common items of research. In particular, the following topics presented in the lectures are of mutual interest: -Methane-steam reforming used at JAERI as HTGR **heat** utilization system and applied at KFA to **internal** reforming in the **high temperature** Solid Oxide Fuel **Cell** (SOFC), -Technology and modeling of **high temperature** electrolysis at JAERI as the **inverse** process of the SOFC developed at KFA, -Flow simulation of branched systems treated at JAERI for the development of **high temperature heat** exchangers and performed at KFA with respect to the SOFC manifold system, -Fundamental aspects of **heat** and mass transfer. The report should help to create a basis of discussing the above mentioned problems and to stimulate the research work at JAERI. (author abst.)

CC YB04040V (621.352.6)

CT laboratory; solid electrolyte; solid fuel **cell**; solar energy; energy storage; catalytic combustion; modeling; chemical property; current-voltage characteristic; computer simulation; methane gas; steam reforming

BT electrolyte; matter; fuel **cell**; chemical **cell**; **battery**; energy resource; resource; natural energy; energy; storage; combustion; operation(processing); property; electrical characteristic; characteristic; computer application; utilization; simulation; combustible gas; reforming; gasification; modification

L18 ANSWER 8 OF 10 COMPENDEX COPYRIGHT 2004 EEI on STN

AN 1996(45):756 COMPENDEX Full-text

TI HITFETs with **current** sensing: low-side **switches** unlimited.

AU Reinmuth, Klaus; Rossle, Christian

SO Siemens Components v 31 n 3 May-Jun 1996.p 18-20
CODEN: SICOD5 ISSN: 9173-1734

PY 1996

DT Journal

TC Application

LA English

AB Used as low-side switches, HITFETs can switch ohmic, inductive and capacitive loads at **battery** potential or at 48 V for industrial applications. These 60 V components are available in the standard TO-220 package or in SMD packages. Their drain-source on resistance RDSon(max) ranges from 18 to 100 m Omega .HITFETs are fully protected against: overloads, short circuits, overvoltage, excess temperature, and ESD. Here, shortcircuit protection plays a special role: apart from limitation of the short-circuit current, effective dissipation of the resulting power loss must be ensured at all times; power dissipation depends on the **thermal** conditions and the **internal** reaction time of the component. Short-circuit protection is guaranteed for up to 32 V for the three-pin HITFET, whereas for the five-pin version it is a function of the set current for up to 50 V.In addition to these performance benefits, HITFETs are more cost-effective than electromechanical solutions in applications up to about 5 A.

CC 714.2 Semiconductor Devices and Integrated Circuits; 715 Electronic Equipment, General Purpose and Industrial; 731.3 Specific Variables Control; 701.1 Electricity: Basic Concepts and Phenomena; 942.2 Electric Variables Measurements; 662.4 Automobile and Smaller Vehicle Components

CT *Field effect transistors; Electric resistance; Electric current control; Overvoltage protection; Short circuit currents; MOSFET devices; Resistors; Electric current measurement; Semiconductor switches; Power electronics

ST Low side switches; HITFETs; Overload protection; Over temperature protection; Short circuit protection; Current limitation; **Thermal**

shutdown; Smart power switches; Signal conditioning; Automotive applications
ET V; 48V; is; V is; 60V

L18 ANSWER 9 OF 10 COMPENDEX COPYRIGHT 2004 EEI on STN
AN 1992(12):161095 COMPENDEX DN 9212149818 Full-text
TI Inhomogeneous temperature problems inside a Li/SOC12 **cell**; homogenization by integrated **heat** pipes.
AU LeFriec, C. (ENSMA); Suleiman, A.; Alexandre, A.
MT 22nd International Conference on Environmental Systems.
ML Seattle, WA, USA
MD 13 Jul 1992-16 Jul 1992
SO SAE Technical Paper Series.Publ by SAE, Warrendale, PA, USA, 921165.p 1-5
CODEN: STPSDN ISSN: 0148-7191
PY 1992
MN 16921
DT Conference Article
TC Theoretical; Experimental; Application
LA English
AB In the present paper, we are going to investigate the influence of the temperature gradient on the electrical capacity of the Lithium/thionyl chloride **cells** and the dependence of **internal heat** generation on the temperature level.Moreover, we will show the influence of temperature gradient between couples on the depth of discharge and so how important is to limit this gradient to prevent discrepancy in couple's voltage and **inversion** phenomenon.First, we present a theoretical study concerning the influence of temperature on the **heat** generation of lithium/thionyl chloride couple.This study, which is based on the thermoneutral potential, was carried out using calorimetry measurement.We also display the evolution of discharge tension and current with temperature.Secondly, we present a real evolution of these parameters and that for a lithium **battery** cooled by an aluminium corset put on a coldplate. A nodal model has been made to simulate **battery** behaviour and different parameter's evolution for a realistic discharge profile. It follows that pure conduction cooling system is not suitable in the case of high discharge currents in the **cell** lithium **cells**.A new cooling concept is proposed to overcome this problem left bracket 1 right bracket .(Author abstract) 6 Refs.
CC 702 Electric Batteries & Fuel Cells; 801 Chemical Analysis & Physical Chemistry; 641 Heat & Thermodynamics; 921 Applied Mathematics
CT *ELECTRIC **BATTERIES**:Lithium; ELECTROCHEMISTRY:Mathematical Models; ELECTRIC **BATTERIES**:Cooling; **HEAT** PIPES
ST **HEAT** GENERATION; THERMONEUTRAL POTENTIAL; DISCHARGE VOLTAGE; INTEGRATED **HEAT** PIPE
ET Li

L18 ANSWER 10 OF 10 DISSABS COPYRIGHT (C) 2004 ProQuest Information and Learning Company; All Rights Reserved on STN
AN 85:25846 DISSABS Order Number: AAR8602188
TI NON-**THERMAL** RADIATION MECHANISMS AND PROCESSES IN SS 433 AND ACTIVE GALACTIC NUCLEI
AU BAND, DAVID LOUIS [PH.D.]
CS HARVARD UNIVERSITY (0084)
SO Dissertation Abstracts International, (1985) Vol. 47, No. 1B, p. 248. Order No.: AAR8602188. 307 pages.
DT Dissertation
FS DAI
LA English

ED Entered STN: 19921118
Last Updated on STN: 19921118

AB Studies of the jet emitting compact binary system SS 433 and the non-**thermal** synchrotron-self-Compton scattering process reveal features of the interaction of compact objects with their environments. The Einstein MPC X-ray observations of SS 433 are best fit by a non- **thermal** power law spectrum where both the intensity and (energy) spectral index varied on a timescale of hours to days. Flares characterized by an intensity increase and a hardening of the spectral index are attributed (within the context of the slaved disk model) to accretion surges that occur at certain orbital phases in a binary with a Roche-lobe filling primary whose spin axis is misaligned with the orbital axis.
The synchrotron-self-Compton methodology in spherical geometries is refined, emphasizing both geometrical and spectral factors for both homogeneous and inhomogeneous **sources. Electron** and photon energy distribution cutoffs, as well as the high energy Klein-Nishina scattering cross-section, are considered in the spectral calculation. Physically reasonable variations on the standard model create observable breaks, spectral index changes, and peaks in the observed spectrum.
The spectra from radio quiet active galactic nuclei (such as Seyfert 1 galaxies and radio quiet quasars) can result from a non-**thermal** model with a "broken" power law electron distribution where synchrotron losses cause the distribution to steepen. The canonical source has a turnover at about 10('12) Hz, and a broken synchrotron power law with a far infrared (energy) spectral index of (alpha) (TURN) .7 and a near infrared spectral index (alpha) (TURN) 1.2. The scattered spectrum with (alpha) (TURN) .7 intersects the steeper synchrotron spectrum in the soft X-ray band. Observable radio emission originates in extended sources and jets outside of the core. Reacceleration is required throughout the source. The flat hard X-ray spectra from Seyferts requires the scattering of optical and ultraviolet **thermal** photons. Finally, the model of expanding sources (perhaps embedded in jets) is extended to include both continuous electron injection and **inverse** Compton X-ray production. Application of this methodology to SS 433 suggests that the radio flares require additional electron injection into the expanding sources in the jets, while the X-ray emission cannot originate in these expanding sources. Analogous to the sources within radio quiet quasars, a self-consistent non-**thermal** source **within** the binary can satisfy observational constraints.

CC 0606 PHYSICS, ASTRONOMY AND ASTROPHYSICS

L23 ANSWER 1 OF 4 PCTFULL COPYRIGHT 2004 Univentio on STN
AN 2004097159 PCTFULL ED 20041117 EW 200446 Full-text
TIEN THERMAL PROCESSES FOR SUBSURFACE FORMATIONS
TIFR PROCEDES THERMIQUES POUR FORMATIONS SOUTERRAINES
IN WELLINGTON, Scott, Lee, 5109 Aspen Street, Bellaire, Texas 77401, US [US, US];
VINEGAR, Harold, J., 4613 Laurel, Bellaire, Texas 77401, US [US, US];
ROUFFIGNAC, Eric, Pierre de, 4040 Ruskin, Houston, Texas 77005, US [US, US];
KARANIKAS, John, Michael, 4655 Wild Indigo Street, Apartment 302, Houston, Texas 77027, US [GR, US];
BERCHENKO, Ilya, Emil, 2102 Pine Drive, Friendswood, Texas 77546, US [US, US];
STEGEMEIER, George, Leo, 5819 Queensloch Drive, Houston, Texas 77096, US

[US, US];
ZHANG, Etuan, 5425 Loch Lomond Drive, Houston, Texas 77096, US [US, US];
SHAHIN, Gordon, Thomas, Jr., 4801 Cedar Street, Bellaire, Texas 77401, US [US, US];
FOWLER, Thomas, David, 634 Aldersgate Court, Katy, Texas 77450, US [US, US];
RYAN, Robert, Charles, 214 Cove Creek, Houston, Texas 77042, US [US, US];
MAHER, Kevin, Albert, 5106 Huisache Street, Bellaire, Texas 77401, US [US, US];
MENOTTI, James, Louis, 1810 Caroline, Dickinson, Texas 77539, US [US, US];
COLES, John, Matthew, 703 Park Meadow Drive, Katy, Texas 77450, US [US, US];
KEEDY, Charles, Robert, 5118 Danebridge Drive, Houston, Texas 77084, US [US, US];
MADGAVKAR, Ajay, Madhav, 3102 Bentgrass Drive, Katy, Texas 77450, US [US, US];
VAN HARDEVELD, Robert, Martijn, Badhuisweg 3, NL-1031 CM Amsterdam, NL [NL, NL];
SCHOELING, Lanny, Gene, 2006 Emerald Loft Circle, Katy, Texas 77450, US [US, US];
WARD, John, Michael, 2231 Royal Adelaide Drive, Katy, Texas 77450, US [US, US];
SUMNU-DINDORUK, Meliha, Deniz, 13011 Fox Brush Lane, Houston, Texas 77041, US [US, US];
BIELAMOWICZ, Lawrence, James, 5223 Chestnut, Bellaire, Texas 77401, US [US, US];
BAXLEY, Phillip, Temmons, 107 McTighe Drive, Bellaire, Texas 77401, US [—, US];
HUNSUCKER, Bruce, Gerard, 5149 Mockingbird Lane, Katy, Texas 77493, US [US, US];
CARL, Fredrick, Gordon, Jr., 8406 Edgemoor Drive, Houston, Texas 77036, US [US, US];
LEPPER, Gordon, Bruce, 115 Waterloo Drive S.W., Calgary, Alberta T3C 3G4, CA [—, CA];
ROBERTS, Bruce, Edmunds, 64 Harkwood Hill NW, Calgary, Alberta T3C 3G6, CA [CA, CA];
VEENSTRA, Peter, 8507 Chipping Rock Drive, Sugarland, Texas 77479, US [—, US];
WATKINS, Ronnie, Wade, 17503 Bending Cypress Road, Cypress, Texas 77429, US [US, US];
CRANE, Steven, Dexter, 2610 Spring Lake Drive, Richardson, Texas 75082, US [US, US];
MESSIER, Margaret, Ann, 1404 4A Street NW, Calgary, Alberta T2M 3A9, CA [CA, CA];
PRATT, Christopher, Arnold, Box 4, Station 7, RR-1, Cochrane, Alberta T4C 1A1, CA [US, CA];
BASS, Ronald, Marshall, 3772 Ingold Street, Houston, Texas 77005, US [US, US];
MIKUS, Thomas, 906 Coachlight Drive, Houston, Texas 77077, US [—, US];
GLANDT, Carlos, Alberto, Insulindeweg 27, NL-2612EL Delft, NL [—, NL];
PALFREYMAN, Bruce, Donald, 1015 Ivory Ridge Lane, Houston, Texas 77094, US [US, US];

AYMOND, Dannie, Antoine, Jr., 8002 Shangrila Lane, Houston, Texas 77095, US [US, US];
HARRIS, Christopher, Kelvin, 2422 Dorrington #B, Houston, Texas 77030, US [GB, US];
COLE, Anthony, Thomas, Torenstraat 21D, NL-2513 BN Den Haag, NL [GB, NL];
MCKINZIE, Billy, John, II, 11907 Kemp Hollow Lane, Houston, Texas 77043, US [US, US];
SON, Jaime, S., 10210 Meadow Lake Lane, Houston, Texas 77042, US [US, US];
DEMARTINI, David, Charles, 11714 Spriggs Way, Houston, Texas 77024, US [US, US];
SANDBERG, Chester, L., 758 Torreya Court, Palo Alto, California 94303, US [US, US];
BAI, Taixu, 21311 Wild Jasmine Lane, Katy, Texas 77450, US [CN, US];
STONE, Francis, M., Jr., 2951 Marina Bay Drive #130-299, League City, Texas 77573, US [US, US];
GINESTRA, Jean-Charles, 5207 Mimosa Lane, Richmond, Texas 77469, US [FR, US];
HANSEN, Kirk, Samuel, 647 Electra Drive, Houston, Texas 77079, US [US, US];
WAGNER, Randolph, Rogers, 14919 Chadbourne Drive, Houston, Texas 77079, US [US, US];
HARTMANN, Robin, Adrianus, Volmerlaan 8, 2288, NL-2288-GD Rijswijk, NL [NL, NL];
SANZ, Guillermo, Pastor, 6118 Saratoga Springs Lane, Houston, Texas 77041, US [ES, US];
FAIRBANKS, Michael, David, 2906 Cambry Corssing Court, Katy, TX 77494, US [US, US]

PA SHELL OIL COMPANY, Christensen, Del, P.O. Box 2463, Houston, TX 77252-2463, US [US, US], for US only;
SHELL CANADA LIMITED, 400-4th Avenue, S.W., Calgary, Alberta T2P 2H5, CA [CA, CA], for CA only;
SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B.V., Carel van Bylandtlaan 30, NL-5296 HR The Hague, NL [NL, NL], for all designates States except US;
WELLINGTON, Scott, Lee, 5109 Aspen Street, Bellaire, Texas 77401, US [US, US], for US only;
VINEGAR, Harold, J., 4613 Laurel, Bellaire, Texas 77401, US [US, US], for US only;
ROUFFIGNAC, Eric, Pierre de, 4040 Ruskin, Houston, Texas 77005, US [US, US], for US only;
KARANIKAS, John, Michael, 4655 Wild Indigo Street, Apartment 302, Houston, Texas 77027, US [GR, US], for US only;
BERCHENKO, Ilya, Emil, 2102 Pine Drive, Friendswood, Texas 77546, US [US, US], for US only;
STEGEMEIER, George, Leo, 5819 Queensloch Drive, Houston, Texas 77096, US [US, US], for US only;
ZHANG, Etuan, 5425 Loch Lomond Drive, Houston, Texas 77096, US [US, US], for US only;
SHAHIN, Gordon, Thomas, Jr., 4801 Cedar Street, Bellaire, Texas 77401, US [US, US], for US only;
FOWLER, Thomas, David, 634 Aldersgate Court, Katy, Texas 77450, US [US, US], for US only;
RYAN, Robert, Charles, 214 Cove Creek, Houston, Texas 77042, US [US, US], for US only;

MAHER, Kevin, Albert, 5106 Huisache Street, Bellaire, Texas 77401, US [US, US], for US only;
MENOTTI, James, Louis, 1810 Caroline, Dickinson, Texas 77539, US [US, US], for US only;
COLES, John, Matthew, 703 Park Meadow Drive, Katy, Texas 77450, US [US, US], for US only;
KEEDY, Charles, Robert, 5118 Danebridge Drive, Houston, Texas 77084, US [US, US], for US only;
MADGAVKAR, Ajay, Madhav, 3102 Bentgrass Drive, Katy, Texas 77450, US [US, US], for US only;
VAN HARDEVELD, Robert, Martijn, Badhuisweg 3, NL-1031 CM Amsterdam, NL [NL, NL], for US only;
SCHOELING, Lanny, Gene, 2006 Emerald Loft Circle, Katy, Texas 77450, US [US, US], for US only;
WARD, John, Michael, 2231 Royal Adelaide Drive, Katy, Texas 77450, US [US, US], for US only;
SUMNU-DINDORUK, Meliha, Deniz, 13011 Fox Brush Lane, Houston, Texas 77041, US [US, US], for US only;
BIELAMOWICZ, Lawrence, James, 5223 Chestnut, Bellaire, Texas 77401, US [US, US], for US only;
BAXLEY, Phillip, Temmons, 107 McTighe Drive, Bellaire, Texas 77401, US [—, US], for US only;
HUNSUCKER, Bruce, Gerard, 5149 Mockingbird Lane, Katy, Texas 77493, US [US, US], for US only;
CARL, Fredrick, Gordon, Jr., 8406 Edgemoor Drive, Houston, Texas 77036, US [US, US], for US only;
LEPPER, Gordon, Bruce, 115 Waterloo Drive S.W., Calgary, Alberta T3C 3G4, CA [—, CA], for US only;
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MESSIER, Margaret, Ann, 1404 4A Street NW, Calgary, Alberta T2M 3A9, CA [CA, CA], for US only;
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MIKUS, Thomas, 906 Coachlight Drive, Houston, Texas 77077, US [—, US], for US only;
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PALFREYMAN, Bruce, Donald, 1015 Ivory Ridge Lane, Houston, Texas 77094, US [US, US], for US only;
AYMOND, Dannie, Antoine, Jr., 8002 Shangrila Lane, Houston, Texas 77095, US [US, US], for US only;
HARRIS, Christopher, Kelvin, 2422 Dorrington #B, Houston, Texas 77030, US [GB, US], for US only;
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MCKINZIE, Billy, John, II, 11907 Kemp Hollow Lane, Houston, Texas 77043, US [US, US], for US only;

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DEMARTINI, David, Charles, 11714 Spriggs Way, Houston, Texas 77024, US [US, US], for US only;
SANDBERG, Chester, L., 758 Torreya Court, Palo Alto, California 94303, US [US, US], for US only;
BAI, Taixu, 21311 Wild Jasmine Lane, Katy, Texas 77450, US [CN, US], for US only;
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WAGNER, Randolph, Rogers, 14919 Chadbourne Drive, Houston, Texas 77079, US [US, US], for US only;
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SANZ, Guillermo, Pastor, 6118 Saratoga Springs Lane, Houston, Texas 77041, US [ES, US], for US only;
FAIRBANKS, Michael, David, 2906 Cambry Corssing Court, Katy, TX 77494, US [US, US], for US only

AG MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C., Meyertons, Eric, B., P.O. Box 398, Austin, TX 78767-0398, US
LAF English
LA English
DT Patent
PI WO 2004097159 A2 20041111
DS W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
W-U: AE AL AM AT AZ BG BR BY BZ CN CO CR CZ DE DK EC EE EG ES FI GE HU JP KE KG KP KR KZ LS MD MX MZ NI PH PL PT RU SK SL TJ TR TT UA UG UZ YU
RW (ARIPO): BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW
RW (EAPO): AM AZ BY KG KZ MD RU TJ TM
RW (EPO): AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PL PT RO SE SI SK TR
RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
RW-U (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
AI WO 2004-US12784 A 20040424
PRAI US 2003-60/465,279 20030424
US 2003-60/514,593 20031024

ABEN A process may include providing heat from one or more heaters to at least a portion of a subsurface formation. Heat may transfer from one or more heaters to a part of a formation. In some embodiments, heat from the one or more heat sources may pyrolyze at least some hydrocarbons in a part of a subsurface formation. Hydrocarbons and/or other products may be produced from a subsurface formation. Certain embodiments describe apparatus, methods, and/or processes used in treating a subsurface or hydrocarbon containing formation.

ABFR L'invention concerne un procede pouvant consister a fournir de la chaleur a partir d'un ou de plusieurs rechauffeurs vers au moins une partie d'une formation souterraine. La chaleur peut etre transferee a partir d'un ou de

plusieurs rechauffeurs vers une partie d'une formation. Dans certains modes de realisation, la chaleur de ladite ou desdites sources de chaleur peut pyrolyser au moins certains hydrocarbures dans une partie d'une formation souterraine. Des hydrocarbures et/ou autres produits peuvent etre produits a partir d'une formation souterraine. Dans certains modes de realisation, l'invention concerne un appareil, des procedes et/ou des processus utilises pour traiter une formation souterraine ou contenant des hydrocarbures.

L23 ANSWER 2 OF 4 PCTFULL
AN 2003062056 PCTFULL ED 20030808 EW 200331 Full-text
TIEN ICE MODIFICATION, REMOVAL AND PREVENTION PRIORITY
TIFR MODIFICATION, SUPPRESSION DE GLACE ET PREVENTION CONTRE CELLE-CI
IN PETRENKO, Victor, 4 Woodland Drive, Lebanon, NH 03766, US [US, US]; SULLIVAN, Charles, 7 South Park Street, Hanover, NH 03755, US [US, US]; DERESH, Lev, 14 Peirce Road, Plainfield, NH 03781, US [US, US]
PA TRUSTEES OF DARTMOUTH COLLEGE, 11 Rope Ferry Road, Hanover, NH 03755, US [US, US], for all designates States except US; PETRENKO, Victor, 4 Woodland Drive, Lebanon, NH 03766, US [US, US], for US only; SULLIVAN, Charles, 7 South Park Street, Hanover, NH 03755, US [US, US], for US only; DERESH, Lev, 14 Peirce Road, Plainfield, NH 03781, US [US, US], for US only
AG KNOPS, Peter, C., Lathrop & Gage, LC, Suite 2800, 2345 Grand Boulevard, Kansas City, MO 64108, US
LAF English
LA English
DT Patent
PI WO 2003062056 A1 20030731
DS W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
RW (ARIPO): GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
RW (EAPO): AM AZ BY KG KZ MD RU TJ TM
RW (EPO): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
AI WO 2002-US1858 A 20020122
PRAI US 2001-60/262,775 20010119
US 2001-60/263,943 20010124
US 2001-60/272,747 20010301
US 2001-60/283,670 20010412
US 2001-09/872,295 20010601
US 2001-60/299,693 20010620
US 2001-09/971,287 20011004
US 2001-09/970,555 20011004
US 2001-09/976,210 20011011
US 2002-09/976,210 20020109
US 2002-09/976,210 20020111
ABEN An alternating electric field is applied to ice (530) to generate a resistive AC having a frequency greater than 1000 Hz in interfacial ice at interface (554).
A first electrode (510) and a second electrode (514) proximate to the interface

are separated by an electrical insulator (512). An AC power source (520) provides
a voltage of about 10 to 500 volts across the electrodes to create the alternating
electric field. A portion of the capacitive AC associated with the alternating electric field is present in the interfacial ice as conductivity (resistive) AC, which causes dielectric loss heating in the interfacial ice.

ABFR Un champ electrique alternatif est applique a de la glace (530) de maniere a produire un courant alternatif resistant presentant une frequence superieure a 1000 Hz dans la glace de surface situee sur l'interface (554). Une premiere electrode (510) et une seconde electrode (514), placees a proximite de ladite interface, sont separees par un isolant electrique (512). Une source de courant alternatif (520) fournit une tension comprise entre 10
et 500 volts a travers l'electrode de facon a creer le champ electrique alternatif. Une partie du courant alternatif capacitatif
associee avec ledit champ electrique alternatif est presente dans la glace de surface en tant que courant alternatif (resistant) de conductivite,
qui entraine un chauffage par perte dielectrique dans la glace de surface.

L23 ANSWER 3 OF 4 EUROPATFULL COPYRIGHT 2004 WILA on STN

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 1081739 EUROPATFULL UP 20020218 EW 200110 FS OS STA R Full-text
TIEN IMAGE FORMING DEVICE.
TIDE BILDERZEUGUNGSVORRICHTUNG.
TIFR DISPOSITIF DE FORMATION D'IMAGES.
IN MIYAZAKI, Toshihiko, 836-44, Tanaka, Isehara-shi, Kanagawa 259-1142, JP;
ONO, Takeo, 26-15, Yokoyama 3-chome, Sagamihara-shi, Kanagawa 229-1122, JP;
MITSUTAKE, Hideaki, 37-3-303, Katsuradai 2-chome, Aoba-ku, Yokohama-shi, Kanagawa 227-0034, JP;
HASEGAWA, Mitsutoshi, 1-9-202, Namiki 2-chome, Kanazawa-ku, Yokohama-shi, Kanagawa 236-0005, JP;
YAMAGUCHI, Eiji, 37-1-510, Komatsubara 1-chome, Zama-shi, Kanagawa 228-0002, JP;
YAMADA, Shuji, 6-60-304, Tsumadahigashi 1-chome, Atsugi-shi, Kanagawa 243-0813, JP;
TODOKORO, Yasuyuki, 21-13, Takatanishi 4-chome, Kohoku-ku, Yokohama-shi, Kanagawa 223-0066, JP
PA CANON KABUSHIKI KAISHA, 30-2, Shimomaruko 3-chome, Ohta-ku Tokyo 146-8501, JP
PAN 542362
AG Beresford, Keith Denis Lewis et al., 2-5 Warwick Court High Holborn, London WC1R 5DJ, GB
AGN 28274
OS BEPA2001018 EP 1081739 A1 0290
SO Wila-EPZ-2001-H10-T2b
DT Patent
LA Anmeldung in Japanisch; Veroeffentlichung in Englisch; Verfahren in Englisch
DS R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PIT EPA1 EUROPAEISCHE PATENTANMELDUNG (Internationale Anmeldung)
PI EP 1081739 A1 20010307

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OD                                  20010307
AI      EP 2000-906728              20000306
PRAI    JP 1999-103035              19990305
        JP 1999-98232               19990405
RLI     WO 00-JP1347            000306 INTAKZ
        WO 0054307              000914 INTPNR
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ABEN An image formation apparatus is disclosed which includes, within an enclosure configured by a pair of substrates placed face to face and an external frame placed between the substrates, an electron source placed on one of the pair of substrates, an image formation material placed on the other substrate, and spacers placed between the substrates, characterized in that the spacers and the external frame is conductive and device is provided for electrically connecting the spacers and the external frame so that the equipotential surfaces between the spacers and the external frame are quasi-parallel when driven. <image>

L23 ANSWER 4 OF 4 EUROPATFULL

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 1077443 EUROPATFULL UP 20020218 EW 200108 FS OS STA R Full-text
TIEN IMAGE FORMING DEVICE.
TIDE BILD-FORMIERUNGS-VORRICHTUNG.
TIFR DISPOSITIF DE FORMATION D'IMAGES.
IN MIYAZAKI, Toshihiko, 836-44, Tanaka, Isehara-shi, Kanagawa 259-1142, JP;
ABE, Naoto, 1065-3-A201, Ichigaocho, Aoba-ku, Yokohama-shi, Kanagawa 225-0024, JP;
ONO, Takeo, 26-15, Yokoyama 3-chome, Sagamihara-shi, Kanagawa 229-1122, JP;
MITSUTAKE, Hideaki, 37-3-303, Katsuradai 2-chome, Aoba-ku, Yokohama-shi, Kanagawa 227-0034, JP;
HASEGAWA, Mitsutoshi, 1-9-202, Namiki 2-chome, Kanazawa-ku, Yokohama-shi, Kanagawa 236-0005, JP;
YAMAGUCHI, Eiji, 37-1-510, Komatsubara 1-chome, Zama-shi, Kanagawa 228-0002, JP;
YAMADA, Shuji, 6-60-304, Tsumadahigashi 1-chome, Atsugi-shi, Kanagawa 243-0813, JP;
TODOKORO, Yasuyuki, 21-13, Takatanishi 4-chome, Kohoku-ku, Yokohama-shi, Kanagawa 223-0066, JP
PA CANON KABUSHIKI KAISHA, 30-2, Shimomaruko 3-chome, Ohta-ku Tokyo 146-8501, JP
PAN 542362
AG Beresford, Keith Denis Lewis et al., 2-5 Warwick Court High Holborn, London WC1R 5DJ, GB
AGN 28274
OS BEPA2001014 EP 1077443 A1 0296
SO Wila-EPZ-2001-H08-T2a
DT Patent
LA Anmeldung in Japanisch; Veroeffentlichung in Englisch; Verfahren in Englisch
DS R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PIT EPA1 EUROPAEISCHE PATENTANMELDUNG (Internationale Anmeldung)

PI	EP 1077443	A1	20010221
OD			20010221
AI	EP 2000-906727		20000306
PRAI	JP 1999-103035		19990305
	JP 1999-98239		19990405
RLI	WO 00-JP1346	000306	INTAKZ
	WO 0054246	000914	INTPNR

ABEN An electron beam display comprising a first substrate (1011) having an electron emitting device (1012); a second substrate having a substrate having a transparent substrate (1017), a phosphor layer (1018) provided on the transparent substrate, a mask member for demarcating the phosphor layer into light-emitting regions, an accelerating electrode (1019) for accelerating electrons emitted from the electron emitting device, and an antistatic film (1022); a vacuum enclosure constituted of a member including the first and second substrates spaced from each other and having therein a spacer member (1020) for maintaining the spacing and a getter; and a drive circuit including a scanning line device circuit for sequentially applying a scanning signal to scanning lines (1014) and a control line drive circuit for applying a modulation signal corresponding to image information to all the control lines (1013) at once synchronously with the scanning lines. <image>